guided the writers in their selection of material for illustration is not clear. As a list of parasitic fungi from a region where little systematic collection has been carried on, this paper is a useful contribution. Its usefulness might have been greatly enhanced if the authors had indicated what part of their material constituted additions to the known fungus flora of Texas, and what part represented species formerly known from that region, for it can scarcely be doubted that so extensive a collection of material contains much that is new to the region.—H. HASSELBRING.

A new type of Cycadofilicales.—From a study of numerous casts, SCHUSTER[25] has described the staminate and ovulate flowers of *Schuetzia anomala* and has drawn some conclusions in regard to the position of the genus. The impressions of the staminate flowers were so numerous that it was not difficult to make reconstructions. The flower consists of 12–20 cyclic sporophylls united throughout the lower two-thirds of their length and bearing sporangia upon their inner surfaces, resembling SELLARD'S *Codonotheca* and STUR'S *Calymmatotheca*. The flowers are in a spicate inflorescence. The longitudinally striated "seeds" described by GOEPPERT are regarded as megasporophylls, and it is important to note that these megasporophylls are in undoubted connection with twigs bearing conifer-like leaves. On account of this association, SCHUSTER would make *Schuetzia* the type of a new group of Cycadofilicales, characterized by the conifer-like leaves.—CHARLES J. CHAMBERLAIN.

Root nodules of Podocarpineae.—Miss SPRATT[26] has found that root nodules are present in *Podocarpus*, *Microcachrys*, *Dacrydium*, *Saxegothaea*, and *Phyllocladus*, being modified lateral roots. A root-hair is penetrated by *Pseudomonas radicicola* (a nitrogen-fixing organism) and from thence enters the cortex. In all cases the nodules are produced by the infection of the meristematic tissue of the young lateral root before it emerges from the cortex of the parent root. Many interesting observations are made upon the stages of the bacteria and also upon the condition of the tissues of the host. The conclusion is suggested that the morphology of the nodules favors the view that *Podocarpus* and *Saxegothaea* "are the most widely divergent of the genera in the Podocarpineae, and that they are connected through *Microcachrys* and *Dacrydium*." The presence of the nodules in *Phyllocladus* is also further confirmation that the genus is related to the podocarps rather than to the taxads. —J. M. C.

---

[25] SCHUSTER, J., Über die Fruktification von *Schuetzia anomala*. Sitzungsb. Kaiserl. Akad. Wiss. Wien **120**:1125–1134. *pls. 1, 2.* 1911.

[26] SPRATT, ETHEL ROSE, The formation and physiological significance of root nodules in the Podocarpineae. Ann. Botany **26**:801–814. *pls. 77–80.* 1912.